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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/527,978	10/19/2005	Spencer Stephens	STRX-108(P)	7588

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EXAMINER	
LEE, ANDREW CHUNG CHEUNG	
ART UNIT	PAPER NUMBER
2419	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/527,978	STEPHENS ET AL.	
	Examiner	Art Unit	
	Andrew C. Lee	2419	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 June 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 and 26-42* is/are pending in the application.

4a) Of the above claim(s) *2-25* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,26-42* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Claims 2 – 25 have been cancelled.

Claims 26 – 42 are newly added.

Claims 1, 26 – 42 are pending.

Specification

2. Claim 37s are objected to because of the following informalities:

Regarding claim 37, on page 9 of the newly added claims, there are duplicate numbers of claim 37. Clarification and appropriate correction are required.

Claim Objections

3. Claims 1, 28, 36, 37 objected to because of the following informalities:

Regarding claim 1, the claimed subject matter “groop” in line 6 is a typo. Is the word referring to “group”? Clarification and appropriate correction are required.

Regarding claim 28, claim 28 in lines 2 and 7, has the same deficiencies as claim 1. The claimed subject matter “groop” is a typo. Is the word referring to “group”? Clarification and appropriate correction are required.

Regarding claim 36, claim 36 in line 8 has the same deficiencies as claim 1. Clarification and appropriate correction are required.

Regarding claim 37, on page 9 of the newly added claims, there are duplicate numbers of claim 37. Clarification and appropriate correction are required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1 and 36 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Regarding claim 1, the amended claim subject matter "wherein nodes of said plurality of the nodes are organized in a hierarchical order, such that a number of highest laver components of said plurality of the access points comprised in said plurality of the nodes is smaller than a number of lowest layer components of said plurality of the access points comprised in said plurality of the nodes in order to reduce a total number of components needed to provide said plurality of the access points of a communication network of said system" is not disclosed and indicated explicitly in the specification at the time the application was initially filed. Clarification and appropriate action are required.

Regarding claim 36, the amended claim subject matter "wherein nodes of said plurality of the nodes are organized in a hierarchical order, such that a number of highest layer components of said plurality of the access points comprised in said plurality of the nodes is smaller than a number of lowest layer components of said plurality of the access points comprised in said plurality of the nodes in order to reduce a total number of

components needed to provide said plurality of the access points of the communication network of said system" is not disclosed and indicated explicitly in the specification at the time the application was initially filed. Clarification and appropriate action are required.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 29 recites the limitation "said access dot layer" in line 10. There is insufficient antecedent basis for this limitation in the claim.

Claim 30 recites the limitation "said access dot layer" in line 10. There is insufficient antecedent basis for this limitation in the claim.

Claim 35 recites the limitation "said access dot layer" in line 13. There is insufficient antecedent basis for this limitation in the claim.

Claim 39 recites the limitation "said access dot layer" in line 10. There is insufficient antecedent basis for this limitation in the claim.

Claim 40 recites the limitation "said access dot layer" in line 10. There is insufficient antecedent basis for this limitation in the claim.

Claim 42 recites the limitation "said access dot layer" in line 13. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 28, 38, 31, 32, 36, are rejected under 35 U.S.C. 102(b) as being anticipated by Okajima et al. (US 20010018336 A1).

Regarding claim 1, Okajima et al. disclose a system *(Fig. 1, Fig. 2, Fig. 3)*, comprising: a plurality of access points distributed through a plurality of nodes of said system *(Fig. 1, Fig. 2, Abstract)*, wherein components of each access point of said plurality of the access points is divided into two or more groops located in corresponding two or more nodes of said plurality of the nodes, said two or more nodes being remotely located relative to each other, such that each of said two or more nodes is configured to establish a remote communication link with one or more of said two or more nodes *(Fig. 1, Fig. 2, Abstract, paras. [0006] - [0009])*, wherein nodes of said plurality of the nodes are organized in a hierarchical order *(Fig. 1, Fig. 2)*, such that a number of highest layer components of said plurality of the access points comprised in said plurality of the nodes is smaller than a number of lowest layer components of said plurality of the access points comprised in said plurality of the nodes in order to reduce a total number of components needed to provide said plurality of the access points of a communication network of said system *(Fig. 1, Fig. 2, Abstract, paras. [0006], [0078] – [0080])*.

Regarding claims 28, 38, Okajima et al. disclose the system and method claimed wherein each of said two or more groops located in said corresponding two or more nodes of said plurality of the nodes comprises a remote link driver configured to provide said remote communication link by extending a bus or using a protocol stack tunnel

between corresponding components of said each of said two or more groops *(paras. [0088], [0089]).*

Regarding claim 31, Okajima et al. disclose the system claimed further comprising one or more system controllers, wherein each system controller of said one or more system controllers is configured to control one or more access points of said plurality of the access points distributed through said plurality of the nodes *(Fig. 1, Fig.2, paras. [0006], [0078]).*

Regarding claim 32, Okajima et al. disclose the system claimed wherein at least one of said one or more system controllers is logically centralized and implemented as a physical switch *("the switch"; Fig. 2, paras. [0006], [0078]).*

Regarding claim 36, Okajima et al. disclose a method *(Fig. 1, Fig. 2, Fig. 3, Abstract)*, comprising: receiving or transmitting a communication signal by any access point of a plurality of the access points of a communication network of a system for further processing, said plurality of the access points being distributed through a plurality of nodes of said system *(Fig. 1, Fig. 2, Abstract, paras. [0006] - [0007], [0078]),* wherein components of each of said plurality of the access points are divided into two or more groops located in corresponding two or more nodes of said plurality of the nodes, said two or more nodes being remotely located relative to each other, such that each of said two or more nodes is configured to establish a remote communication link with one or more of said two or more nodes *(Fig. 1, Fig. 2, Abstract, paras. [0006] - [0009]),* and wherein nodes of said plurality of the nodes are organized in a hierarchical order, such that a number of highest layer components of said plurality of the access points

comprised in said plurality of the nodes is smaller than a number of lowest layer components of said plurality of the access points comprised in said plurality of the nodes in order to reduce a total number of components needed to provide said plurality of the access points of the communication network of said system *(Fig. 1, Fig. 2, Abstract, paras. [0006], [0078] – [0080]).*

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 26, 27, 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okajima et al. (US 20010018336 A1) in view of Atkinson et al. (US 20020012329 A1).

Regarding claim 26, Okajima et al. disclose the system claimed wherein each access point of said plurality of the access points comprises corresponding two or more nodes of said plurality of the nodes *(Fig. 1. Fig. 2),* said corresponding two or more nodes are: an access dot, and an access dot controller *(Fig. 3, para. [0080])*

Okajima et al. do not disclose explicitly an access dot, comprising a radio frequency layer component; and an access dot controller, comprising an access point software layer component. Atkinson et al. in the same field of endeavor teach an access dot, comprising a radio frequency layer component *(Fig. 1, para. [0013]; element 133, RF module and baseband, Fig. 4, para. [0052]; Fig. 6, paras. [0071], [0072]);* and an access

dot controller, comprising an access point software layer component *(Fig. 1, para. [0016]; element 132, Fig. 4, para. [0054]; Fig. 6, paras. [0071], [0072]).*

At time the invention was made it would have been obvious to a person of ordinary skill in the art to modify the teachings of Okajima et al. to include the features of an access dot, comprising a radio frequency layer component; and an access dot controller, comprising an access point software layer component as taught by Atkinson et al. One of ordinary skill in the art would be motivated to do so for providing wireless communications between devices and more particularly, to Java.TM. or Java-like technology based communications between baseband technology enabled devices *(as suggested by Atkinson et al., see para. [0002]).*

Regarding claims 27, 37, Okajima et al. disclose the system and method claimed wherein said remote communication link is a wireless communication link *("wireless channel"; Fig. 2, Fig. 3, para. [0082])*,

Okajima et al. do not disclose explicitly a short-range wireless communication link, a BLUETOOTH link, or a wired link. Atkinson et al. in the same field of endeavor teach a short-range wireless communication link, a BLUETOOTH link *("short-range', Bluetooth"; paras. [0005] – [0007]), or a wired link (wired; para. [0053]).*

At time the invention was made it would have been obvious to a person of ordinary skill in the art to modify the teachings of Okajima et al. to include the features of a short-range wireless communication link, a BLUETOOTH link, or a wired link as taught by Atkinson et al. One of ordinary skill in the art would be motivated to do so for providing wireless communications between devices and more particularly, to Java.TM. or Java-

like technology based communications between baseband technology enabled devices *(as suggested by Atkinson et al., see para. [0002]).*

10. Claims 29, 39, 30, 40, 34, 41, 35, 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okajima et al. (US 20010018336 A1) and Atkinson et al. (US 20020012329 A1) as applied to claims 1, 36 above, and further in view of Bahl et al. (US 7248570 B2).

Regarding claims 29, 39, 30, 40, **34**, **41, 35, 42**, Okajima et al. disclose the system and method claimed wherein each access point of said plurality of the access points comprises corresponding two or more nodes of said plurality of the nodes *(Fig. 1. Fig. 2),* said corresponding two or more nodes are: an access dot, and an access dot controller *(Fig. 3, para. [0080]).*

Okajima et al. do not disclose explicitly an access dot, comprising a radio frequency layer component; and an access dot controller, comprising an access point software layer component, wherein a physical layer component layer component is comprised in said access dot layer or in said access dot controller.

Atkinson et al. in the same field of endeavor teach an access dot, comprising a radio frequency layer component *(Fig. 1, para. [0013]; element 133, RF module and baseband, Fig. 4, para. [0052]; Fig. 6, paras. [0071], [0072]);* and an access dot controller, comprising an access point software layer component *(Fig. 1, para. [0016]; element 132, Fig. 4, para. [0054];; Fig. 6, paras. [0071], [0072]),* wherein a physical layer component layer component is comprised in said access dot layer or in said access dot

controller *element 133, RF module and baseband, Fig. 4, para. [0052]; Fig. 6, paras. [0071], [0072]),* wherein an access point software layer component is comprised in said access dot layer or in said access dot controller (*element 132, Fig. 4, para. [0054]; Fig. 6, paras. [0071], [0072])*.

At time the invention was made it would have been obvious to a person of ordinary skill in the art to modify the teachings of Okajima et al. to include the features of an access dot, comprising a radio frequency layer component; and an access dot controller, comprising an access point software layer component, wherein a physical layer component layer component is comprised in said access dot layer or in said access dot controller, wherein an access point software layer component is comprised in said access dot layer or in said access dot controller as taught by Atkinson et al. One of ordinary skill in the art would be motivated to do so for providing wireless communications between devices and more particularly, to Java.TM. or Java-like technology based communications between baseband technology enabled devices *(as suggested by Atkinson et al., see para. [0002]).*

The combined system of Okajima et al. and Atkinson et al. does not disclose explicitly system controller comprising access point software layer component.

Bahl et al. in the same field of endeavor teach system controller comprising access point software layer component *("controller"; Fig. 2, col. 6, lines 52 – 64).*

At time the invention was made it would have been obvious to a person of ordinary skill in the art to modify the teachings of Okajima et al. and Atkinson et al. to include the features of system controller comprising access point software layer

component as taught by Bahl et al. One of ordinary skill in the art would be motivated to do so for providing bandwidth usage of a communication channel by wireless nodes in different types of networks that have overlapping transmission ranges *(as suggested by* Bahl et al.*, see col. 1, lines 10 – 15).*

11. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Okajima et al. (US 20010018336 A1) in view of Szentesi et al. (US 7366108 B2)

Regarding claim 33, Okajima et al. disclose the system claimed wherein at least one of said one or more system controllers is logically centralized *(Fig. 1, para. [0006], [0078])* except implemented using a physically distributed hosting function incorporated into one or more access points of said plurality of the access points distributed through said plurality of the nodes.

Szentesi et al. in the same field of endeavor teach implemented using a physically distributed hosting function incorporated into one or more access points of said plurality of the access points distributed through said plurality of the nodes *("radio network controllers" interpreted as system controller; Fig. 1, col. 5, lines 19 – 47).*

At time the invention was made it would have been obvious to a person of ordinary skill in the art to modify the teachings of Okajima et al. and Atkinson et al. to include the features of implemented using a physically distributed hosting function incorporated into one or more access points of said plurality of the access points distributed through said plurality of the nodes as taught by Szentesi et al. One of ordinary skill in the art would be motivated to do so for providing method for optimization of the

configuration of a hierarchical network comprising a plurality of hierarchy levels each comprising nodes each of which receives aggregated traffic from a cluster of nodes of the hierarchy level below *(as suggested by* Szentesi et al.*, see col. 2, lines 18 – 22).*

Response to Arguments

12. Applicant's arguments filed on 6/30/2009 with respect to claims 1, 26 – 42 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a) Bahl et al. (US 7248570 B2).
b) Okanoue (6134587).
c) Vikberg et al. (US 6925074 B1).

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew C. Lee whose telephone number is (571)272-3131. The examiner can normally be reached on Monday through Friday from 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on (571) 272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you

have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Andrew C Lee/
Examiner, Art Unit 2419
<9/07/2009:4Q09>

/Ayaz R. Sheikh/
Supervisory Patent Examiner, Art Unit 2419